CLAIMS

1. (Currently Amended) A system for inductively transferring electrical power to a computer peripheral device during normal operation of the peripheral device, comprising:

a base unit including:

a source loop solenoid having an axis substantially perpendicular to a planar surface of the base unit to generate a magnetic field,

a loop power circuit to provide a signal to drive the source loop, and

a power source coupler structured to provide power to the loop power circuit when the power source coupler is coupled to a power source; and

the peripheral device having a victim loop and structured to be inductively coupled to the base unit while the peripheral device is in operable condition [[.]];

wherein the base unit comprises a first area and a second area, and wherein a level of magnetic permeability is higher in the first area than in the second area.

2. (Original) The power transfer system of claim 1 wherein the peripheral device is a computer mouse.

3. (Original) The power transfer system of claim 2 wherein the base unit is incorporated in a mousepad.

4. (Cancelled)

5. (Original) The power transfer system of claim 1 wherein the peripheral device comprises a first area and a second area, and wherein a level of magnetic permeability is higher in the first area than in the second area.

6. (Original) The power transfer system of claim 5 wherein the peripheral device further comprises a data transmitter having an antenna formed in the first area.

7. (Previously presented) The power transfer system of claim 1 wherein the victim loop is a coil of wire having a solenoid shape.

8. (Original) The power transfer system of claim 1 wherein the base further comprises one or more additional source loops.

9. (Original) The power transfer system of claim 1 wherein the peripheral device further includes:

a rechargeable battery, and

a recharging circuit coupled between the victim loop and the rechargeable battery.

10. (Original) The power transfer system of claim 1, further comprising:

a data transmitter coupled to the peripheral device, and

a data receiver coupled to the base unit.

11. (Original) The power transfer system of claim 10, wherein the data transmitter sends a signal selected from the group consisting of radio frequency, infra-red, and ultrasonic.

12. (Original) The power transfer system of claim 10 wherein the data transmitter is structured to send wireless signals and the data receiver is structured to receive wireless signals.

13. (Original) The power transfer system of claim 1 wherein the peripheral device is additionally in operative condition when not inductively coupled to the base device.

14. (Currently Amended) A system for supplying power to a computer mouse, comprising:

a base unit having a power signal input connectable to a power source, and having a non-planar magnetic source loop coupled to the power signal input, the source loop comprising an axis arranged substantially perpendicular to a planar surface of the base unit; and

the computer mouse having a magnetic victim loop coupled to a load circuit within the mouse, wherein the computer mouse comprises a first area and a second area, and wherein a level of magnetic permeability is higher in the first area than in the second area.

15. (Original) The system of claim 14, further comprising a rechargeable battery in the computer mouse, and wherein the load circuit is coupled to the rechargeable battery.

16. (Original) The system of claim 14 wherein the load circuit is structured to drive a mouse positional circuit within the computer mouse.

17. (Original) The system of claim 14 wherein the load circuit is a wireless data transmitter.

18. (Original) The system of claim 14 wherein the power signal input is coupled to a serial bus, and, when the serial bus is powered, the base unit is structured to supply power from the serial bus to a source loop signal generator, which is coupled to the magnetic source loop.

19. (Original) The system of claim 18 wherein the source loop signal generator comprises an oscillator circuit.

20. (Original) The system of claim 19 wherein the oscillator circuit can generate a signal having a frequency at or above 60 cycles per second.

21. (Original) The system of claim 15, further comprising a docking cradle shaped to receive the computer mouse, the docking cradle having a battery recharging circuit.

22. (Currently Amended) The system of claim 14, wherein, during a normal operating position of the computer mouse, the magnetic source loop and the magnetic victim loop are ~~horizontally~~ overlapped.

23. (Currently Amended) A method of powering a computer peripheral device having a victim loop coupled to circuitry of the peripheral device, the method comprising:

accepting a power signal at a power input; and

applying a source loop driving signal to a source loop solenoid while the source loop solenoid is proximate to the computer peripheral device;

wherein the source loop solenoid has an axis substantially perpendicular to a planar surface over which the peripheral device is moved[[.]]; and

wherein the peripheral device comprises a first area and a second area, and wherein a level of magnetic permeability is higher in the first area than in the second area.

24. (Original) The method of claim 23 wherein the power signal is the source loop driving signal.

25. (Original) The method of claim 23, further comprising rectifying the power signal to a source loop driving signal.

26. (Original) The method of claim 23 wherein the power signal is coupled to a bus on a personal computer.

27. (Currently Amended) A method of recharging a rechargeable battery in a computer mouse that has a magnetic victim loop coupled to a battery recharging circuit, the method comprising:

creating a magnetic field by driving a magnetic source loop solenoid with a magnetic source loop driving signal; and

causing the magnetic field to interact with the magnetic victim loop in the computer mouse;

wherein the magnetic source loop solenoid has an axis substantially perpendicular to a planar surface over which the computer mouse is moved[[.]];

wherein the magnetic source loop solenoid is included in a base unit; and

wherein the base unit comprises a first area and a second area, and wherein a level of magnetic permeability is higher in the first area than in the second area.

28. (Original) The method of claim 27, further comprising:

accepting a power signal from a power source; and

converting the power signal into the magnetic source loop driving signal.

29. (Original) The method of claim 28 wherein converting the power signal comprises generating an oscillating signal from the power signal using a pulse width modulation circuit.

30. (Original) The method of claim 28 wherein accepting a power signal from a power source comprises accepting a power signal from a computer bus.